

[METHOD OF DOPING SIDEWALL OF ISOLATION TRENCH]

Abstract

A method of doping sidewalls of an isolation trench is provided. A substrate having a trench thereon is provided. A blocking layer is formed within the trench such that the top surface of the blocking layer is lower than the top surface of the substrate. A sidewall doping process is performed to form a doped region in the substrate at the upper trench sidewall. The blocking layer is removed from the trench. Because the blocking layer prevent dopants from reaching the bottom half of the trench during the sidewall doping process, junction leakage at the bottom section of the trench is prevented.